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## Comparing Zerust Valeno VCI Film to VpCI-126

**To:** Dario Dell'Orto

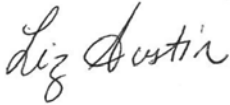
**For:** Mike Gabor

**From:** Cortec Corporation Laboratories  
4119 White Bear Parkway  
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**cc:** Boris Miksic  
Anna Vignetti  
Ivana Radic Borsic  
Bob Boyle  
Mike Morin

**Date:** November 30, 2011

**Project #:** 11-250-1125

**Test conducted by:** 

Liz Austin  
Sr. Lab Technician

**Approved by:**   
Margarita Kharshan  
Laboratory Director



**Background:** Mike Gabor submitted a blue Zerust Valeno VCI bag, and requested that the corrosion protection be tested and compared to VpCI-126.

**Sample Received:**

- 1) Zerust Valeno VCI blue film, ok condition, received 10-27-11

**Method:**

- 1) VIA Test CC-027
- 2) Razor Blade Test CC-004
- 3) FTIR Test CC-006

**Materials:**

- 1) VIA Test Kit
- 2) Razor blade test kit
- 3) Paragon 1000 FTIR
- 4) VpCI-126 Lot# 30688

**Procedure:** The tests were conducted according to standard procedures for each test.

**Results:**

**Razor Blade Test-Carbon Steel Panels**

Sample	Panel 1	Panel 2	Panel 3
Zerust Valeno VCI Film	Fail	Fail	Fail
VpCI-126 Film	Pass	Pass	Pass
Control	Fail	-	-

**Razor Blade Test -Copper Panels**

Sample	Panel 1	Panel 2	Panel 3
Zerust Valeno VCI Film	Fail	Fail	Fail
VpCI-126 Film	Pass	Pass	Pass
Control	Fail	-	-

**VIA Test Results**



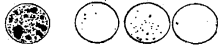

Sample	Plug #1	Plug #2	Plug #3
Zerust Valeno VCI Film	Grade 0	Grade 0	Grade 0
VpCI-126 Film	Grade 3	Grade 3	Grade 2
Control	Grade 0	-	-

Note: The VIA grading system is attached to the end of the report.

**Interpretations:**

1. Based on the test results, the blue Zerust Valeno VCI film did not provide vapor or contact-phase corrosion protection. Analysis of the FTIR spectrum determined that there was not a sufficient amount of inhibitor, if any.
2. The VpCI-126 film provided sufficient vapor and contact-phase corrosion protection.
3. Zerust Valeno VCI film contains an insufficient amount of corrosion inhibitors (see FT-IR graph attached).

**VIA Test Grades (Grade 2 or 3 are passing)**

		
		Grade 0
Grade 0:	Blind test No corrosion inhibiting effect	
Grade 1:	Blind test Minute corrosion inhibiting effect	Grade 1
Grade 2:	Blind test Medium corrosion inhibiting effect	
Grade 3:	Blind test Good corrosion inhibiting effect	Grade 2
		
		Grade 3

